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In defence of simplified PES designs

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Payments for ecosystem services (PES) schemes are underperforming. Wunder et al.[1] conclude that this is because many projects are allowing local politics, rather than economistic theory and evidence, to dictate who participates, and how they are paid and sanctioned. While we appreciate Wunder et al.'s analysis, we view that their work downplays key evidence about the importance of maintaining the legitimacy of PES schemes amongst local participants, and of the wider range of social-ecological factors that may explain variability in PES effectiveness. We argue that simplification of such schemes, by enhancing local transparency and acceptability, can in fact be scientifically justified and central to project effectiveness.

Understanding what determines the effectiveness of a PES project is a research frontier. Wunder et al. conclude that the three PES 'desirable design features' of spatial targeting, payment differentiation and sanctioning are often being overly simplified in order to maintain local political support. Wunder et al. then argue that this may explain why many PES schemes are not effective. Our main concern is that the framing of the article appears to lead to an unwarranted (although perhaps unintended) relegation of social concerns, below their three desirable design features. The authors conclude that projects may be reluctant to sanction non-compliance, and to adopt more complex differentiation of payments, in order to maintain local perceptions of fairness and community support (henceforth, 'local legitimacy'). In contrast to this view, both theory[2] and observations[3] show that local perceptions of project legitimacy are central to PES effectiveness—without it, projects can fail in their land use objectives. Further, evidence suggests that to achieve local legitimacy, PES projects often need to adopt procedures that are easily understandable, and seen as fair, by local participants[4]. This is the rationale for simplified approaches to the desirable design features of Wunder et al.

Wunder et al. do implicitly address some aspects of local legitimacy through their discussion of distributional equity issues and the political sensitivities of sanctioning. We argue, however, that the overall effect of their framing causes local legitimacy to be treated far less prominently than the empirical PES literature warrants: the conclusions mainly present such concerns as a cause of 'deficiencies' in design, where programmes have departed too far from their three design principles. While there is ongoing debate about the extent to which local legitimacy concerns should be prioritised over other issues, we propose that there is a growing consensus that accounting for local legitimacy (and related equity) is at least one of the main enabling factors for PES effectiveness[5]. We suggest that local legitimacy be considered an additional theoretical pre-condition for effective PES, alongside Wunder et al.'s other principles.

The treatment of non-compliance in the article provides an example of how explicit consideration of local legitimacy may allow for more nuanced and locally grounded understandings of PES design. Wunder et al. categorise many of the projects in their sample as having 'never' sanctioned non-compliance. However, assessments of non-compliance are rarely straightforward decisions as implied by Wunder, and need to be adapted to local behaviour (see Keane et al.[6] for examples from conservation). Thus, the type and severity of sanctions need to be negotiated locally with legitimacy considerations in mind. Other evidence[7,8], however, shows that at least some of these projects do sanction non-compliance by temporarily withholding payments to underperforming farmers until

agreed 'corrective actions' have been completed– and that this nuanced approach was developed to improve programme effectiveness by strengthening the local legitimacy of institutional processes. Local legitimacy concerns thus interact with and moderate other design features such as sanctioning, and are mutually supportive.

Our two other concerns are straightforward. First, while we recognise existing evidence that effective targeting can improve PES effectiveness, other evidence shows that even the most advanced methods for estimating both opportunity costs[9] and likely ecosystem service benefits[10,] have limited certainty and precision. Additionally, more complex approaches are likely to be more costly, which might prevent or impair projects with fewer resources (many of which may coincide with remote 'high value' conservation areas)[11]. Wunder et al. state that simple targeting is likely affordable and use examples of national schemes. This may be true for larger schemes with economies of scale, but is likely to be costly for smaller projects[12]. Simpler and cheaper approaches to environmental assessments can be just as effective[13]. We thus caution against encouraging PES implementers to invest their limited resources in complex and costly analyses unless the relative gains are clear. Finding simple and effective methods of targeting remains a key challenge for PES.

Second, and more broadly, the wider PES literature suggests that drivers of effectiveness are far more diverse than the three design features of spatial targeting, payment differentiation and sanctioning (for a recent review see Huber-Stearns et al.[14]). The three design features assessed in Wunder et al. are an analytical framework (derived from Ezzine-de-Blas et al.[15]) focused the on economistic design principles of efficiency and conditionality, rather than a more comprehensive scoping of factors. The wider PES literature suggests that, while these design features are no doubt important, they likely offer only partial explanations of PES effectiveness[14].

In summary, while we appreciate Wunder et al.'s examination of their selected design principles, we view that future studies on PES effectiveness should explicitly address the wider social-ecological context and drivers of environmental interventions and behaviour.

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